

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D 17 NOV 2004

WIPO

PCT



22 FEB 2005

Applicant's or agent's file reference US60405372TS		FOR FURTHER ACTION: See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/FI 03/00481	International filing date (day/month/year) 16.06.2003	Priority date (day/month/year) 23.08.2002	
International Patent Classification (IPC) or both national classification and IPC D21F1/00			
Applicant METSO PAPER, INC. et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 25.02.2004	Date of completion of this report 16.11.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Helpiö, T. Telephone No. +49 89 2399-7495 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/FI 03/00481

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*):

Description, Pages

1-22 as originally filed

Claims, Numbers

1-18 as originally filed

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/FI 03/00481

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-18
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-18
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents:
D1: US-A-5 972 168 (MEINECKE ALBRECHT ET AL) 26 October 1999 (1999-10-26)
D2: US-B-6 372 091 (WILDFONG VAUGHN J ET AL) 16 April 2002 (2002-04-16)
D3: EP-A-0 688 900 (VALMET PAPER MACHINERY INC) 27 December 1995 (1995-12-27)
- 2 The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (cf. especially column 3, line 66 - column 5, line 41; figures 1-3) a method according to the preamble of claim 1. In this known method, additionally,

"the forming wires (11,12) are guided from the beginning of the twin-wire forming section into the area of the fixed forming shoe (16) of the first dewatering zone (I) in such a way that the fixed forming shoe (16) is used to cause dewatering in the fibrous stock travelling in between the forming wires (11,12), which dewatering is applied to the fibrous stock in the area following after the leading edge of the fixed forming shoe (16)". (cf. characterizing part of claim 1 in part).

The subject-matter of claim 1 therefore differs from this known method in that dewatering in the first dewatering zone is

"essentially non-pulsating".

The problem to be solved by the present invention may therefore be regarded as providing an improved method at the twin-wire formation section of a paper or board machine resulting in an improved retention and formation in the first dewatering zone.

However, essentially non-pulsating dewatering has already been employed for the same purpose in the method for forming a paper web according to document D2 (cf. especially column 4, lines 10-40; columns 5-12; figures). It would be obvious

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/FI 03/00481

to the person skilled in the art, namely when the same result is to be achieved, to apply essentially non-pulsating dewatering in the first dewatering zone, with corresponding effect, to the method according to document D1, thereby arriving at the subject-matter of claim 1.

As a consequence, the subject-matter of claim 1 cannot be considered as involving an inventive step (Article 33(3) PCT).

- 3 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent device claim 8, which therefore is also considered not inventive.
- 4 Dependent claims 2-7 and 9-18 do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to inventive step. Their additional subject-matter merely relates to optional features, which are well known from documents D1-D3 or which come within the scope of normal design procedures and which would therefore be applied by the skilled person in view of the technical problem to be solved without the exercise of inventive skill.
